

NORYL PPX™ RESIN PPX7110

REGION EUROPE

DESCRIPTION

NORYL PPX7110 resin is a non-reinforced alloy of polyphenylene ether (PPE) + Polypropylene (PP). This injection moldable grade exhibits high impact resistance and good heat resistance along with hydrolytic and dimensional stability. NORYL PPX7110 resin is an excellent candidate for applications requiring high impact, chemical resistance, and good heat performance.

GENERAL INFORMATION	
Features	Chemical Resistance, Hydrolytic Stability, Low Warpage, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, Dimensional stability, High stiffness/Strength, High temperature resistance, Impact resistant, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyphenylene Ether + PP (PPE+PP)
Processing Techniques	Sheet extrusion, Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances, Commercial Appliance
Hygiene and Healthcare	Patient Testing

TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Taber Abrasion, CS-17, 1 kg	75	mg/1000cy	SABIC method
Tensile Stress, yield, 5 mm/min	34	MPa	ISO 527
Tensile Stress, break, 5 mm/min	30	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	6	%	ISO 527
Tensile Strain, break, 5 mm/min	195	%	ISO 527
Tensile Modulus, 1 mm/min	1500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	50	MPa	ISO 178
Flexural Modulus, 2 mm/min	1700	MPa	ISO 178
Ball Indentation Hardness, H358/30	65	MPa	ISO 2039-1
IMPACT ⁽¹⁾			
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	25	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	9	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	25	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	5	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m ²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	38	kJ/m ²	ISO 179/1eU
THERMAL ⁽¹⁾			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, 23°C to 60°C, flow	9.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.2E-04	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	95	°C	ISO 306
Vicat Softening Temp, Rate B/120	100	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	108	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	75	°C	ISO 75/Ae
PHYSICAL ⁽¹⁾			
Density	0.97	g/cm ³	ISO 1183
Melt Volume Rate, MVR at 280°C/5.0 kg	12.9	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 260°C/5.0 kg	11	cm ³ /10 min	ISO 1133
ELECTRICAL ⁽¹⁾			
Volume Resistivity	>1.E+15	Ω.cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ω	IEC 60093
Dielectric Strength, in oil, 3.2 mm	22	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	2.2	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.0006	-	IEC 60250
Dissipation Factor, 1 MHz	0.0006	-	IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Relative Permittivity, 50/60 Hz	2.2	-	IEC 60250
FLAME CHARACTERISTICS ⁽²⁾			
Glow Wire Flammability Index 650°C, passes at ⁽³⁾	3.2	mm	IEC 60695-2-12
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	60 – 65	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 290	°C	
Nozzle Temperature	260 – 290	°C	
Front - Zone 3 Temperature	250 – 290	°C	
Middle - Zone 2 Temperature	240 – 285	°C	
Rear - Zone 1 Temperature	225 – 275	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	40 – 60	°C	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) Value shown here is based on internal measurement.

(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>



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